

OPTICAL VIRTUAL LOCAL AREA NETWORK

ABSTRACT OF THE DISCLOSURE

The maximum number of virtual local area networks (VLANs) is increased beyond the
5 number provided solely with the VLAN ID, by a factor related to the number of wavelengths
of a Wavelength Division Multiplexing (WDM) used by a network switching. An optical
VLAN number (OVLAN ID) is a combination of the VLAN ID from the packet header and a
path or wavelength ID (WL ID) that identifies a selected one of available wavelengths of a
WDM transmission line. An Optical VLAN (OVLAN) conversion table stores data of the
10 OVLAN ID, the VLAN ID and optical path ID, for an optical VLAN node.

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